

A Revision of the Genus *Stenoloba* Staudinger (Lepidoptera, Noctuidae, Bryophilinae) with Descriptions of 15 New Species and 3 New Subspecies from East Asia (II)

V. S. KONONENKO and L. RONKAY¹⁾

Institute of Biology & Pedology Far Eastern Branch of Russian Academy
of Sciences, RF-690022, Vladivostok, Russia. E-mail: vkononenko@hotmail.com

¹⁾Department of Zoology, Hungarian Natural History Museum,
H-1088 Budapest, Baross u. 13, Hungary. E-mail: ronkay@zoo.zoo.nhmus.hu

Abstract Fifteen new species of the genus *Stenoloba* Staudinger (Lepidoptera, Noctuidae, Bryophilinae) are described in this second part of the article, with 21 colour photos of adults and 33 genitalia figures.

Key words Taxonomy, Noctuidae, Bryophilinae, South-East Asia, *Stenoloba*, new species.

INTRODUCTION

The second part of this article (see the first part in Ins. Koreana 2000, 17(3): 137-174) contains the survey of the *S. viridimicta*-, the *S. glaucescens*-, the *S. nigrabasalis*- and the *S. viridescens* species groups, with descriptions of 15 new species.

SYSTEMATIC REVIEW

The *Stenoloba viridimicta* species-group

***Stenoloba sericea* sp. n.**

(Figs 1, 22, 42)

Diagnosis. The new species is closely related to the following *S. variegata* sp. n.; the main differences are as follows: forewing of *S. sericea* more shiny; ground colour generally darker, less variegated; reniform more indistinct; hindwing significantly darker. The male genitalia of the two species are characterized by the moderately large, flattened uncus and the distally evenly tapering valva, terminating into a strong spine at apex towards end. The male genitalia of *S. sericea* differ from those of *S. variegata* by somewhat shorter, basally broader, medially and tapering valva, having less triangular cucullus and

shorter apical spine; smaller, subdeltoidal juxta; shorter, broader sacculus and by the smaller cornuti field of the vesica. The valva of *S. variegata* is longer, narrower, with almost parallel costal and ventral margins; the cucullus is more triangular, its apical spine is longer, stronger; the juxta is broader, more shield-like; cornuti field of the vesica is larger, covering also the tip of one of the distal diverticula.

The female genitalia have very large, quadrangular antrum, relatively short, folded ductus bursae, and the corpus bursae has a sclerotized ventral crest. The postero-lateral extensions of the antrum are smaller in *S. sericea*, the ductus bursae is shorter and the corpus bursae is more elongate than those of *S. variegata*. The other taxa of the species-group have much larger thoracic tuft, narrower, longer forewing, and less rounded hindwing; the reniform is marked with pale ochreous-reddish scales, etc.

Description. Wingspan: 26–29 mm. Head and thorax light ochreous-green, marked with blackish hairs. Forewing elongated, relatively broad, apex finely pointed. Ground colour shiny, dark grey-brown; costal area weakly irrorated with mossy green; basal and inner parts of wing with blackish brown scales. Base of wing brilliant golden-green; basal line double, strongly dentate, filled with whitish-green. Antemedial line oblique, sinuous, filled with pale greenish; medial line represented by a few brownish scales; postmedial line less distinct, slightly sinuous, its lower part defined by conspicuous, whitish filling. Orbicular and claviform stigmata absent; reniform marked with some dark brown spots. Subterminal line indistinct, defined by darker brownish shadow; apical patch light grey. Terminal line with a row of black spots; tornal patch strong, blackish. Hindwing almost uniformly dark brown, with shadow of large, round discal spot, and diffuse transverse line usually well-discernible. Underside of wings ochreous grey; forewing strongly suffused; hindwing less intensely irrorated with dark grey-brown, discal spots and transverse lines present.

Male genitalia (Fig. 22). Uncus relatively short, flattened; tegumen long, narrow; vinculum narrow, and long; juxta deltoidal. Valva simple, constricted apically, with a group of strong setae in distal part of valva; apex with a strong spine directed apically; lobe of sacculus moderate, not extending over dorsal margin. Aedeagus large, but shorter than valva; vesica wide, tubular, with two wide distal diverticula and with large, dense distal cornuti field, consisting of small cornuti.

Female genitalia (Fig. 42). Ovipositor weak, short; papillae anales rather broad; gonapophyses short but strong. Antrum large, long quadrangular, sclerotized, flattened; caudal margin with shallow medial incision and with short postero-lateral extensions. Ductus bursae short, flattened, folded, sclerotized; cervix bursae elongate, narrow (almost as broad as antrum), membranous, with a large sclerotized lateral crest; corpus bursae sacculiform, membranous.

Materials examined. Holotype: male, North Vietnam, Prov. Vinh Phu, Tam Dao, 1230 m, 22–23 IV 1995 (M Owada). Paratype: 8 ♂, 10 ♀, same data as the holotype; 1 ♂, 1 ♀, N Vietnam, Tam Dao 1200 m, 1–15 V 1992 (Sinajev & Simonov leg.). The type series, including the holotype, are deposited in NSM, Tokyo; two paratypes are in coll. Dr. Speidel, Bonn.

Distribution. North Vietnam.

***Stenoloba variegata* sp. n.**

(Figs 2, 23, 43)

Diagnosis. The comparison of *S. variegata* with *S. sericea* is given under the preceding species.

Description. Wingspan: 28–30 mm. Head and thorax light ochreous green with scarce dark markings. Forewing relatively broad, with arcuate costa and with finely pointed apex. Ground colour greenish grey; costal area covered with darker mossy green scales, other parts of wing with blackish brown and dark-grey scales. Base of wing brilliant, golden-green; basal line rather indistinct, double, strongly dentate, filled with whitish-green. Antemedial line oblique, sinuous, filled with pale greenish; medial line with a fine, pale shadow; postmedial line double, dark brown, with conspicuous whitish spots at tornal area. Orbicular and claviform stigmata absent; reniform stigma dark grey-brown, with fine, paler greyish inner lunule. Subterminal line less distinct, defined by darker brownish shadow; apical patch light ashy grey; terminal line a row of black spots. Hindwing whitish ochreous, suffused with greyish brown; discal spot large, rounded; transverse line diffuse, poorly visible. Underside of wings ochreous grey; forewing covered with darker brown; hindwing irrorated with a few dark grey-brown scales, discal spots and transverse lines present.

Male genitalia (Fig. 23). Uncus slender, flattened; tegumen high, narrow; juxta broad, more or less shield-like with short apical part; vinculum rather V-shaped. Valva simple, long, narrow, with almost parallel costal and ventral margins; cucullus small, triangular, with a long, acute apical spine, and with large field of strong setae at proximal end; sacculus relatively long, narrow, with stronger sclerotized distal plate. Aedeagus thick, cylindrical, considerably shorter than valva; vesica broadly tubular, reclinate ventro-laterally, with two distal diverticula and a large field consisting of strong but rather short spinules, covering partly tip of one of these diverticula, and with a smaller, pocket-like terminal diverticulum.

Female genitalia (Fig. 43). Ovipositor weak, short; papillae anales short, much smaller than those of the preceding species. Apophyses anteriores and posteriores very short (about half as long as those of *S. sericea*), weak. Antrum large, long, almost equal to those of *S. sericea* in length, sclerotized, flattened, quadrangular; its upper margin with shallow cut at middle and with larger postero-lateral extensions than in case of *S. sericea*. Ductus bursae relatively short but longer, wider than in *S. sericea*, flattened, folded and sclerotized; cervix bursae elongate, wider than in *S. sericea*, sclerotized in caudal part, with sclerotized lateral crest; corpus bursae membranous, elongate, ellipsoidal.

Materials examined. Holotype: female, North Vietnam, Cha-pa, Mt. Fan-si-pan, 2213'N, 10346'E, 1500–1800 m, 8–28 V 1993 (leg. V Sinaev & M Simonov), deposited in the collection of Dr. W Speidel (Bonn, Germany). Paratype: 2 ♂, Vietnam, Prov. Kon Tum, Ngoc Linh Nature Reserve, 1750 m, March 1998 (leg. A Monastyrski) (coll. HNHM Budapest).

Slide no. RL7004m (male).

Distribution. North and Central Vietnam.

***Stenoloba viridimicta* Hampson, 1910**

(Figs 3, 24)

Stenoloba viridimicta Hampson, *Cat. Lepid. Phalaenae Br. Mus.* 10: 369, pl. 159: 31, (TL: India,

Meghalaya, Khasis (HT, male: BMNH, London)

Diagnosis. The comparison of *S. viridimicta* with the closely related *S. chlorographa* sp. n. is given in the diagnosis of the latter species.

Description. Male. Wingspan 30 mm. Head and thorax dark brown–grey mixed with green; thoracic tuft very large, similar to that of *S. jankowskii*. Forewing narrow, long, costal and inner margins almost parallel. Ground colour shiny, dark chocolate–brown, mixed with some bluish grey and vivid green scales. Lower part of basal line sharply defined, white and blackish; upper part obsolescent; base of wing brilliant mossy green; antemedial line rather diffuse, oblique, double and sinuous; median fascia a weak, darker brown shadow; postmedial line indistinct, marked with some whitish spots. Orbicular stigma poorly visible, represented by a few blackish spots; reniform stigma marked with a few dark spots and a fine ochreous–brownish dot; claviform missing but substituted by a long, dark streak running from basal line to medial line. Median area with some sharply defined, dark brown or blackish spots in and below cell; subterminal line represented by a row of poorly visible, minute whitish spots, followed by green shadow outwards; apical patch light green. Hindwing narrow, elongate; ground colour dark cupreous brown; marginal area even darker; discal spot diffuse, shadow–like; transverse line absent. Underside of wings ochreous brown; forewing strongly suffused; hindwing sparsely irrorated with dark grey–brown scales; discal spots and transverse lines present on both wings.

Male genitalia (Fig. 24). Uncus short, rudimentary; tegumen high, narrow; vinculum moderately long; juxta deltoidal, rather high. Valva long, strongly tapering apically; costa straight; apical part very narrow, with few small spines on top; sacculus elongate, with relatively narrow lobe. Aedeagus large but shorter than valva, curved slightly in distal half, more sclerotized apically; vesica large, globular, with small diverticulum in distal part armed with short, wide–based, spine–like cornutus; distal surface of vesica finely scobinate; medial part with longitudinal, sclerotized, cristate ribbon and with small, scarce field of cornuti consisting of setiform spiculi.

Female unknown.

Materials examined. Holotype: male, Khasis (coll. BMNH, London); 1 ♂, India, West Bengal, Darjeeling, Pastok, 850 m, 29 III 1986 (leg. W Thomas) (coll. S Sugi, Tokyo).

Slide no. SS–6029.

Distribution. North India.

***Stenoloba chlorographa* sp. n.**

(Figs 4, 25, 44)

Stenoloba viridimicta sensu Yoshimoto, 1995 (nec Hampson, 1910): 69, pl. 109, fig. 2, text. fig. 616.

Diagnosis. The new species is very similar to *S. viridimicta* but somewhat smaller in size, the ground colour of the forewing is more shiny, suffused with some reddish brown, the ante– and postmedial crosslines are less distinct but the greenish and blackish markings are stronger, more sharply defined, their coloration is more vivid. The male genitalia of *S. chlorographa* differ from those of *S. viridimicta* by the presence of a wide sclerotized costal plate on the costa dorsally, the distally more curved valva and

the different armature of the vesica.

Description. Wingspan: 26–29 mm. Head and thorax dark brown–grey and green; thoracic tuft very large, greenish. Forewing elongate, narrow, long; costal and inner margins almost parallel; apex finely pointed. Ground colour shiny, deep chocolate–brown suffused with reddish brown, mixed with vivid green scales; basal line sharply defined, white, upper part sinuous, slightly interrupted, lower part oblique, straight; base of wing brilliant moss–green; other crosslines obsolescent, less visible, except a few whitish spots of postmedial line. Orbicular stigma encircled with some black spots; reniform marked by a fine ochreous–brownish triangle and a few black scales; dark streak at place of claviform long, rather sharply defined, running from basal line to medial line. Subterminal line represented by a poorly visible row of minute whitish spots, followed by a green shadow outwards; apical patch sharp, light green, defined by white scales. Hindwing small, elongate; ground colour dark, shiny cupreous brown with darker marginal area; discal spot a diffuse shadow; transverse line absent. Underside of wings ochreous brown; both wings strongly irrorated with dark grey–brown scales, discal spots and transverse lines present on both wings.

Male genitalia (Fig. 25). Uncus relatively short but longer than in the previous species. Tegumen high, narrow; juxta triangular–deltoidal, more massive than that of *S. viridimicta*. Valva strongly tapering apically; costa with long, wide sclerotized plate dorsad; Distal part curved, apical part slightly dilated and finely curved; valval apex acute, covered by a few short spines; sacculus elongate, with relatively narrow lobe. Aedeagus large but shorter than valva, weakly curved; vesica large, inflated, medial part with wide cornuti field consisting of sparse, small, setiform cornuti and with wrinkled longitudinal bar; terminal cornutus short, spine–like.

Female genitalia (Fig. 44). Ovipositor weak, short; papillae anales small; apophyses anteriores longer than posterior ones. Antrum large, quadrangular, flattened and sclerotized, constricted proximally; caudal margin with shallow medial cut and very short postero–lateral extensions. Ductus bursae relatively short, curved, sclerotized dorsally; cervix bursae sclerotized, with stronger fold; corpus bursae rounded, elongate, membranous.

Materials examined. Holotype: male, E Nepal, Koshi, Pheksinda 780 m, 3–13 [?] 1994 (MS Limbu). Slide no. HY–2187. Paratype: 1 ♂, 1 ♀, same data as the holotype. The type series, including the holotype, are deposited in the NSM, Tokyo.

Distribution. East Nepal.

***Stenoloba lichenosa* sp. n.**

(Figs 5, 26, 45)

Diagnosis. The new species and the following taxon, *S. lichenosella* sp. n. represent a closely allied twin species, being rather remote from the other species of the genus by their external features, resembling mostly dark specimens of *S. manleyi*. The male genitalia, however, display closer relationship with the other members of the *S. viridimicta*–group; the two new species under discussion differ mostly from the related taxa by the presence of the strong, long, acute distal saccular lobe. The female genitalia, on the other hand, show similarities also with the *S. manleyi* species–group, by the shape and structure of the antrum, the ductus and the cervix bursae (see Fig. 24 and in Kononenko and Ronkay 2000, Figs

56, 57). The female genitalia of *S. lichenosa* differ from those of *S. manleyi* by the significantly shorter antrum, longer ductus bursae, the more heavily sclerotized, more quadrangular cervix bursae and the absence of the prolongation of this sclerotized plate into the lateral part of the corpus bursae.

Description. Wingspan: 28–33 mm. Head and thorax moss-green, mixed with dark brownish grey and a few whitish hair-scales. Forewing broad; basal third of costa strongly arcuate; apex finely pointed; ground colour uniformly pale, shiny greyish green, irrorated sparsely with brownish grey. Basal line with an oblique, short, blackish grey streak at inner margin; other crosslines diffuse, darker grey; ante- and postmedial lines sinuous, double; medial line a broad shadow; medial area strongly constricted below cell. Orbicular and reniform stigmata relatively large, encircled with dark grey, defined by a few darker spots. Subterminal line whitish green, marked with small, diffuse arrowheads; terminal line a row of greyish spots; cilia mixed with grey-brown scales. Hindwing large, rounded, dark brown with stronger marginal suffusion; discal spot represented by a somewhat darker shadow. Underside of wings pale ochreous grey; forewings strongly irrorated with grey scales; hindwing paler with less intense greyish brown irroration; discal spots and transverse lines present.

Male genitalia (Fig. 26). Uncus rudimentary, short and relatively narrow; tegumen high, narrow; juxta high, rather narrow subdeltoidal with triangular basal plate. Valva wide at base, narrower medially, tapering towards slightly dilated apical part; apex rounded, bearing 3–4 small spines and numerous strong setae. Sacculus elongate, with large, acute distal saccular lobe. Aedeagus large, more or less equal with valva in length; distal part with stronger sclerotization; carina with a strong, long ventral plate; vesica broadly tubular, inflated medially, armed with a long field of small setiform cornuti, running from medial part to terminal end, and with short, wide-based, spiniform terminal cornutus.

Female genitalia (Fig. 45). Ovipositor weak, rather short; apophyses anteriores and posteriores equal in length. Antrum medium-long, flattened, quadrangular, with strong medial sclerotization. Ductus bursae long, tubular, flattened, sclerotized; cervix bursae rather short, heavily sclerotized, with strong crests and folds. Corpus bursae sacculiform, membranous, with stronger or weaker wrinkles and ribs.

Materials examined. Holotype: male, Taiwan, Chai Hsien, Shihtyulu, 21–23 VII 1984 (A Seino), slide No. SS-4373 m (coll. S Sugi, Tokyo), deposited in NSM, Tokyo. Paratypes: Taiwan. Prov. Ilan: 2 ♂, Ming Chyr Forest Recreation Area, 8–9 VII 1997 (leg. B Herczig and ST Kovcs) (coll. HNHN Budapest and B Herczig); Fu-Shan Botanical garden: 1 ♂, 28 VI 1995; 2 ♂, 1 ♀, 27 VII 1995 (leg. A Warneke); 6 ♂, 1 ♀, 26 VII 1995 (leg. JJ Hsiao); 1 ♂, 17 VIII 1993 (leg. YB Fan) (coll. TFRI Taipei). Prov. Taipei: 2 ♂, 1 ♀, Hsiapen, 650 m, 11 VII 1997 (leg. B Herczig and YY Lien) (coll. B Herczig and G Ronkay).

Slide nos RL6995 m Ronkay, RL10TFRI; RL17TFRI; YMK1TFRI; YMK2TFRI (males), RL18TFRI, RL7130f (females).

Distribution. Taiwan.

***Stenoloba lichenosella* sp. n.**

(Figs 6, 27)

Diagnosis. The new species is externally similar to *S. lichenosa* n. sp., but they can be distinguished by the differences of the male genitalia. *lichenosella* n. sp. has, compared with *S. lichenosa*, somewhat

wider uncus, broader juxta, more robust valva with broader but shorter distal saccular lobe; more sclerotized, narrower distal part of valva; short ventral extension and two small, but strong spines at apex; the shape of aedeagus and vesica are also different (see Figs 27, 28).

Description. Male. Wingspan: 30 mm. Head and thorax moss-green, mixed with dark brownish grey hair-scales. Forewing broad; basal third of costa strongly arcuate; apex finely pointed. Ground colour unicolorous pale, shiny moss-green, without brownish-grey irroration; basal line oblique, short, appearing as two blackish streaks at inner margin; other crosslines fine, darker grey. Ante- and postmedial lines sinuous, double; medial line hardly traceable as pale shadow near ventral margin; medial area constricted below cell. Orbicular poorly visible; reniform stigma encircled incompletely with fine dark grey line and with a few darker spots. Subterminal line brownish green, diffuse, somewhat whitish at costal area; terminal line a row of blackish spots; cilia green, mixed with grey-brown scales. Hindwing dark brown, with darker marginal suffusion; discal spot indistinct, shadow-like. Underside of wings pale ochreous grey; forewings strongly; hindwing less intensely irrorated with greyish brown; discal spots and transverse lines present.

Male genitalia (Fig. 27). Uncus rudimentary, short but relatively wide (wider than that of the previous species); tegumen long, narrow; vinculum as long as tegumen; juxta elongate, somewhat wider subdeltoidal than in *S. lichenosa*. Valva wide at base, narrower medially; distal half tapering strongly towards apex; distal part narrower than in *S. lichenosa*, somewhat stick-like, strongly sclerotized; apex bearing short ventral extension and two small, strong spines. Sacculus elongate, with large, broadly triangular distal saccular extension. Aedeagus large but shorter than that of the preceding species, strongly sclerotized, distal part curved ventrally; carina with small sclerotized ventral bar. Vesica broadly tubular, somewhat wider at middle; basal part with small sclerotized plate, medial part with membranous, conical diverticulum, distal part with larger, semiglobular diverticulum armed with short, spine-like cornutus; terminal part of main tube covered with minute spiculi. Female unknown.

Materials examined. Holotype: male, N Vietnam, Tam Dao, 1200 m, 1–15 V 1992 (Sinaev & Simonov leg.), slide no. ZFMK1912, deposited in the NHM, Wien.

Distribution. North Vietnam.

***Stenoloba aenescens* (Moore, 1888), comb. n.**

(Figs 7, 8)

Selepa aenescens Moore, 1888, in Hewitson & Moore, *Descr. new Indian lepid. Insects Colln late Mr. Atkinson*: 288 (TL: India: Sikkim, Darjiling [HT: male, MNHU, Berlin]). Hampson: 1912: 229, pl. 182, fig. 11.

The species *Selepa aenescens* Moore, 1888 is transferred to *Stenoloba*, on the basis of its external characters. The examined type specimen has distinct frontal protuberance, being typical for the genus *Stenoloba* and the wing pattern is also characteristic for this genus. According to these features, this species is placed provisionally to the *S. lichenosa* species-group. Due to missing of the abdomen of the holotype specimen, its taxonomic position is rather tentative, a more precise analysis requires with additional material.

Diagnosis. Male. Wingspan 32 mm. Antenna filiform; frons with conical prominence; head, tegulae and patagia covered with pale ochreous scales. Forewing relatively narrow; ground colour pale olive-brown; costal part of wing from medial shade to outer margin suffused with whitish scales, being more expressed above reniform; basal field whitish, oblique, bordered by white basal line and by black dot in costal part; antemedial line double, its outer line partly joined with median fascia. Orbicular stigma relatively small, rounded; median fascia well marked, diffuse, becoming broader, stronger in its lower half, fused partly with postmedial line. Reniform stigma rather distinct, encircled partly with fine blackish line, filled with flat whitish scales, its black central spot consisting of erected scales. Postmedial line narrow, distinct, waved, curved from costa outwards, then inwards at vein Cu_2 ; subterminal line indistinct; terminal line represented by a row of blackish dots; cilia greyish, with whitish basal line. Hindwing brownish grey; inner area somewhat lighter; discal spot traceable as pale shadow. Underside of wings pale greyish; forewing with dark suffusion, basal streak, medial shadow and reniform stigma visible but diffuse; hindwing with diffuse basal and medial lines and with dark discal spot.

The male genitalia and the female sex are unknown.

Materials examined. Holotype of *Selepa aenescens*, male, with labels: "Darjeling Coll Atkinson/Orig./ *Selepa aenescens* Type Moore/*Aenescens*/6594" [MNHU, Berlin].

Distribution. North India.

The *Stenoloba glaucescens* species-group

***Stenoloba glaucescens* (Hampson, 1894)**

(Figs 9, 10, 28, 46)

Neothripa glaucescens Hampson, 1894, *Fauna Brit. India, (Moth)* 2: 383, fig. 212 (TL: India, Meghalaya, Khasis (HT: male, BMNH, London).

Diagnosis. Females are remarkably larger than males in the populations studied (wingspan of male from Nepal 27 mm, that of female 33 mm; that of male from India 21 mm, female 24 mm). The species is easily recognizable by its narrow forewing with parallel margins and rounded terminal margin. Thoracic crest formed by erected pink scales. Forewing ground colour characteristically dark grey (males) or pale ash-grey (females), with fine olive tint. Basal, antemedial and postmedial lines dark brown or blackish, filled with small patches of white erected scales. Stigmata present, rather sharply defined, especially in females; orbicular forming blackish ring, surrounding with white scales; claviform a blackish spot; reniform large, rounded, marked also with two strong black spots. Subterminal and terminal fields less separated, being suffused variably strongly with reddish-violaceous scales, marked often also reddish streaks; cilia pale reddish brown. Hindwing triangular, pale yellowish grey; marginal suffusion darker brownish grey; cilia yellowish-grey.

Male genitalia (Fig. 28). Uncus moderately long, slender, flattened; tegumen and vinculum narrow; juxta deltoidal, wide at base. Valva with more or less parallel margins, dilated slightly at apical part; distal part covered densely by strong setae at costal area; ventral margin producing into long, acute extension. Saccus moderately long, slightly asymmetrical, larger in left valva. Aedeagus almost as long as valva;

vesica broadly tubular, inflated at middle, armed with large, wedge-shaped terminal cornutus, a long field of numerous small, setiform cornuti and with sclerotized longitudinal bar.

The specimen from N Vietnam differs in the male genitalia as compared with those of the specimens from the Himalayan region, having shorter ventral extension of valva.

Female genitalia (Fig. 46). Ovipositor weak, short; papillae anales rather wide; gonapophyses short, almost equal in length. Antrum large, moderately long, sclerotized, flattened, quadrangular-calyciform with rounded anterior margin; caudal margin with weak postero-lateral extensions. Ductus bursae short, flattened, folded, sclerotized; cervix bursae conical, sclerotized apically, with large sclerotized lateral crest; corpus bursae rather ample, elliptical.

Materials examined. Nepal. 1 male, Janakpur, Dolakha, Chet Chet, 1350 m, 21 VII 1993 (MS Limbu), slide no. HY 2186; 1 ♀, Kathmandu, Mt. Phulchouki 2075 m, 19 V 1992 (K Tamang) [NSM, Tokyo]. India. 1 ♂, Nainitsi, 2100 m, 14–20 V 1975 (W Thomas); 1 ♀, Kumaon-Himalaya, Bhimtal, 1500 m, 7 VII 1979 (Smetacek) [coll. W Speidel].

Distribution. North India, Nepal, N Vietnam.

***Stenoloba glauca* sp. n.**

(Figs 11, 29)

Diagnosis. The new species is very close to *S. glaucescens*; these two taxa represent a pair of sister species. *S. glauca* differs externally from *S. glaucescens* by its paler forewing and the absence of dark grey lines of the three main crosslines which are defined by their white filling patches, these patches being more conspicuous than those of *S. glaucescens*. The male genitalia of *S. glauca* have more massive valva, with finely acute apical angle of cucullus than that of *S. glaucescens*, and the ventral extension is shorter than in case of the related species. In addition, the vesica of *S. glauca* is narrower tubular; the terminal cornutus is considerably stronger, broader, etc.

Description. Male. Wingspan 27 mm. Head and patagia blackish; thoracic crest consisting of erected pink scales. Forewing narrow, with parallel margins and finely pointed apex; outer margin evenly arcuate. Ground colour pale ash-grey with olive tint; basal, subbasal, antemedial, and postmedial lines represented by rows of white patches of erected scales on olive background, defined by somewhat darker olive-grey scales. Orbicular stigma indistinct, pale greyish, surrounded by five spots of white scales; claviform stigma a small blackish mark, defined by whitish scales. Reniform stigma smaller than in *S. glaucescens*, marked by two blackish spots; postmedial line indistinct, diffuse, darker than ground colour, defined by a sinuous row of white spots consisting of erected scales. Subterminal and terminal fields well-separated; subterminal line represented by reddish violet suffusion or reddish streaks; cilia pale greyish-brown. Hindwing triangular, pale yellowish-grey; marginal suffusion dark brownish-grey; discal spot, strong, large but rather diffuse; cilia whitish-grey. Underside of wings yellowish-grey; forewing with brownish suffusion; hindwing with large discal spot, transverse line and dark terminal stripe.

Male genitalia (Fig. 29). Uncus moderately long, weak, flattened, more slender than that of *S. glaucescens*; tegumen and vinculum narrow, moderate; juxta subdeltoidal, wide at base. Valva wider than that of *S. glaucescens*; costal and ventral margins more or less parallel. valva covered dorsally with strong

setae in distal part; apex with fine costal angle (it is rounded in *S. glaucescens*); ventral margin producing into acute, rather broadly triangular extension, being shorter than in *S. glaucescens*; sacculus moderately long, with symmetrical lobes (*S. glaucescens* has asymmetrical lobes, with larger left valva). Aedeagus almost equal to valva in length, rather thick; vesica tubular, recurved and broadened medially, distal half with small, longitudinal sclerotized bar in inner curve; a small diverticulum with small patch of fine setiform cornuti; terminal cornutus large, strong (much stronger, wider than that of *S. glaucescens*).

Female unknown.

Materials examined. Holotype: male, North Vietnam, Cha-pa, Mt. Fan-si-pan, 2215'N, 10346'E, 1500–1800 m, 8–28 V 1993 (leg. Sinaev et Simonov), deposited in coll. W Speidel, Germany.

Distribution. North Vietnam.

***Stenoloba albipicta* sp. n.**

(Figs 12, 30, 47)

Diagnosis. The species has an unique appearance within the genus by its conspicuous white markings in the basal area and along the costal margin. The male genitalia show a closer relationship of the species with *S. glaucescens*; they differ by the length of the uncus, the different apical part of the valva, and by the shape and the armature of the vesica.

Description. Wingspan 26–31 mm. Head and thorax dark plumbeous grey, frons and collar marked with whitish. Forewing rather broadly triangular with evenly arcuate costa and finely pointed apex. Ground colour dark, shiny plumbeous grey with some brownish shade, basal area; upper part of medial field and apical patch bright snow-white; crosslines blackish, sinuous; basal and antemedial lines rather sharply defined, double, postmedial obsolescent below cell, medial line fine, simple. Orbicular and claviform stigmata represented by blackish dots; reniform a blackish, fine lunule. Subterminal indistinct, whitish grey, defined by diffuse, pale arrowheads; terminal line a row of darker grey spots. Hindwing whitish grey, suffused with some brownish scales; veins and marginal area somewhat darker, discal spot shadow-like.

Male genitalia (Fig. 30). Uncus rather short, weak, flattened; tegumen and vinculum narrow, moderate in length; juxta deltoidal, long, wide at base. Valva elongate, with almost parallel margins; apex with small, bulbous costal extension covered by strong setae; ventral margin of apex terminated in long, acute, slightly dentate extension, with a smaller lobe at its base; sacculus elongate, narrow, symmetrical. Aedeagus longer than valva; carina with wide, sclerotized lateral bars; vesica tubular, curved at middle, distal half flat, discoidal diverticulum covered with small setae, and with a small cornuti field consisting of somewhat longer, stronger spinules.

Female genitalia (Fig. 47). Ovipositor weak, short; apophyses anteriores somewhat longer than posteriores. Antrum very long, more or less quadrangular, sclerotized, flattened, slightly dilated posteriorly, with convex caudal margin. Ductus bursae short, strongly sclerotized; cervix bursae heavily sclerotized, bearing folds; corpus bursae elongate, membranous.

Materials examined. Holotype: male, China, Prov. Yuennan, Likiang, 5 VII 1934 (H Höne). Paratype: 13 ♂, 24 ♀, from the same locality, 20 VI 27 VII 1934; 1 ♂, 1 ♀, "Likiang, ca 3000 m, Prov. Nord

Yuennan", 15, 16 VII 1935 (H Höne).

Slide nos ZFMK 1649 (male), ZFMK 1678 (female). The type-series, including the holotype, is deposited in ZFMK, Bonn.

Distribution. South-west China (Prov. Yunnan).

***Stenoloba rufosagitta* sp. n.**

(Figs 13, 31, 32, 48)

Diagnosis. The new species resembles externally *S. oculata* by its dark forewings and the presence of the orange-ochreous tornal spot, but is smaller in size; the crosslines are more sharply defined, more sinuous, and the inner margin is widely rufous orange in basal and medial fields. The specific feature of the male genitalia is the rather broad, quadrangular valval apex, bearing a relatively short, finger-like apical extension.

Description. Wingspan 21–23 mm. Head and thorax blackish-grey, collar marked with whitish; thoracic tuft partly whitish, partly rufous. Abdomen grey, dorsal crest absent. Forewing rather short, narrow; costa arcuate; apex rounded; ground colour blackish-grey, mixed with some greyish and greenish scales along costa. Antemedial line double, strongly sinuous, defined by whitish; upper part of postmedial line less sinuous, rather diffuse, lower third sharply defined, marked with whitish. Orbicular and reniform stigmata incompletely encircled with minute darker grey and whitish spots, their filling slightly darker than ground colour. Inner margin with broad, rufous-orange stripe, running from base of wing to postmedial line; tornal patch also orange-brown. Subterminal line poorly visible or obsolete, represented by pale whitish spots. Hindwing uniformly dark brown; discal spot hardly visible. Underside of both wings dark grey-brownish; hindwing slightly paler; discal spots and transverse lines present, shadow-like.

Male genitalia (Figs 31, 32). Uncus rudimental, short but wide; tegumen and vinculum narrow, moderate in length; juxta broad, large, deltoidal. Valva relatively short, wide at base, weakly tapering towards apex; apical margin abrupted, bearing small, short, finger-like extension. Aedeagus relatively large; vesica with two flat diverticula, covered by short, spine-like cornuti.

Female genitalia (Fig. 48). Ovipositor weak, short; papillae anales rather wide; gonapophyses short but wide. Antrum moderately long, sclerotized, flattened, quadrangular, with very small postero-lateral extensions. Ductus bursae short, membranous, curved at junction with corpus bursae; cervix bursae large, moderately sclerotized; corpus bursae elongate, membranous, fundus narrower, sac-like.

Materials examined. Holotype: male, Taiwan, Nantou Hsien, Lushan-spa, 1200 m, 27–29 VII 1983 (S Sugi); slide No. SS-4091 male (coll. S Sugi, Tokyo). Paratypes: Taiwan: 1 ♂, from the same locality, 24–27 VIII 1983 (H Yoshimoto). North Vietnam: 2 ♂, 4 ♀, Tam Dao, 60 km NW Hanoi, 2334'N 10520'E, 1200 m, 1–5 V 1993 (leg. V Sinaev & M Simonov); 1 ♂, from the same locality, 1–15 V 1992 (leg. Sinaev & Simonov); 1 ♀, Tam Dao, 800–1100 m, 2128'N, 10538'E, 19 V–13 VI 1995 (leg. H Malicky). China: 1 ♂, West Tien-mu-shan, Prov. Chekiang, 21 VIII 1932 (H Höne); 1 ♀, Hoengshan, Prov. Hunan, 8 VIII 1932 (H Höne).

Slide no. ZFMK 1895 (male). The holotype and a paratype from Taiwan are deposited in the NSM

Tokyo, and paratypes are in coll. of NHM, Wien; ZFMK, Bonn; Dr. W Speidel and H Hacker (Germany).
Distribution. Taiwan, North Vietnam, SE. China.

The *Stenoloba nigrabasal* species-group

***Stenoloba nigrabasal* Chang, 1991**

(Figs 14, 33, 49)

Stenoloba nigrabasal Chang, 1991, *Ill. moths of Taiwan*, 5: 53, fig. 33. (TL: Taiwan; HT: male, NMNS, Taichung, Taiwan)

Diagnosis. Wingspan 22-24 mm. *S. nigrabasal*, *S. nora* sp. n. and *S. ochribasis* sp. n. (described below) represent a closely related complex of species, having a rather similar external appearance. They differ, however, in several details in their external and genital features. The forewing ground colour of *S. nigrabasal* and *S. nora* is more greyish; the basal area is darkened, with a conspicuous blackish streak at the place of the claviform; the dark spot behind the reniform is small or missing; the hindwing is pale greyish brown, etc. The forewing ground colour of *S. ochribasis* is more ochreous green; the basal area without strong blackish streak but with orange-rufous filling; the dark spot behind the reniform is sharply defined, black; the hindwing is dark cupreous brown. In the male genitalia this species group is characterized by the presence of the sclerotized scaphium (plate of the anal tube), whereas not developed in other species of *Stenoloba*.

The diagnostic features of the two Taiwanese species are discussed under *S. nora*.

Male genitalia (Fig. 33). Uncus wide, relatively short, weak, flattened; scaphium well-developed, appearing as a sclerotized plate; tegumen and vinculum narrow, moderate in length; juxta broadly deltoidal, wide at base; apical part narrow, long. Valva short, weakly curved, with parallel margins from base to apical third; distal third of valva sharply abruptly ventrally, forming strong, acute subapical costal lobe with cuneate, sclerotized apex; sacculus symmetrical, long, broad, extending over costal margin of valva. Aedeagus large, vesica armed with a short, spine-like cornutus and with two cornuti fields consisting of small, setiform cornuti.

Female genitalia (Fig. 49). Ovipositor weak, papillae anales conical, weakly sclerotized; gonapophyses short, almost equal in length. Antrum elongate, sclerotized, posterior half broadly lyriform with strong postero-lateral extensions and shallow medial incision caudally; proximal part considerably narrower, quadrangular; connected with ductus bursae by narrow, membranous neck. Ductus bursae moderately long, almost equal in length with antrum, with sclerotized medial plate inside; cervix bursae small, membranous; corpus bursae rounded, membranous.

Materials examined. Taiwan: holotype. ♂, coll. BS Chang, in NMNS Taichung; 1 ♂, Prov. Nantou, Tsiuging farm, 1900 m, 9 VI 1988 (leg. S Sugi), slide No. SS 1541; 1 ♀, Prov. Chiayi, Fenchihu, 1600 m, 12-13 VIII 1964 (leg. H Inoue) (coll. S Sugi); 1 ♀, Prov. Nantou, Lushan spa, 1200 m, 30 VII 1 VIII. (leg. K Yazaki) (coll. NSM Tokyo); 1 ♂, Tungpu, 3 km S Hoshe, 1400 m, 8 VII 1996 (leg. G Csorba and L Németh) (coll. Gy. Fábi n, Budapest).

Slide no. 7132 m Ronkay (male).

Distribution. Taiwan.

***Stenoloba nora* sp. n.**

(Figs 15, 34)

Diagnosis. The external appearance of the two sibling species (*S. nigrabasal* and *S. nora*) is sometimes confusingly similar, but the new species is somewhat larger in size (wingspan 24–26 mm) with slightly broader forewings; the postmedial line is defined by fine, partly interrupted grey line, curved more strongly around reniform stigma, not touching its lower extremity (that of *S. nigrabasal* is much paler, mostly marked with its whitish filling, its curve around reniform is more flat, touching lower extremity of the stigma). The shape of the darkened basal area is also somewhat different each other, slightly narrower in *S. nora*. The antemedial line is more sharply defined in the new species, straight with strong angle at lower end of cell, and the dark streak running to place of claviform is shorter; in *S. nigrabasal*, the antemedial line is more diffuse, with less sharp angle at middle, the basal area, comparing with the total length of the wing, is somewhat broader and the dark subbasal streak is longer.

The male genitalia of the two species are conspicuously different: *S. nora* has, comparing with those of *S. nigrabasal*, much weaker scaphium; narrower, apically less tapering juxta; shorter, distally more tapering valva without acute costal lobe but with fine, rounded costal fold at apex; and absence of the short subbasal cornutus of the vesica, etc.

Male genitalia (Fig. 34). Uncus short, weak; scaphium rather narrow and less strong than in *S. nigrabasal*. Tegumen and vinculum narrow, rather long; juxta subdeltoidal, with relatively strong apical (dorsal) extension. Valva short; basal half broad; distal half tapering towards finely rounded apex; subapical costal extension absent; costal area of apex with sclerotized fold. Aedeagus cylindrical; vesica broadly tubular, recurved; basal part weakly scobinate; distal part with large verrucose field and a somewhat stronger, small plate in inner curve.

Materials examined. Holotype: male, Taiwan, Prov. Taoyuan, Ming Chyr Forest Recreation Area, 1160 m, 8–9 VII 1997 (leg. ST Kovács); slide no. 6709 m Ronkay (coll. ST Kovács) (deposited in the HNHM Budapest). Paratype: Taiwan. Prov. Taitung: 11 ♂, 2 km E Hsiangyang, 2200 m, 6 VII 1996 (leg. G Csorba and L Németh) (coll. HNHM Budapest, Gy. Fábán, B Herczig and G Ronkay); 2 ♂, Yakou, 2700 m, 7 VII 1997 (leg. B Herczig and ST Kovács) (coll. B Herczig).

Slide nos 6994 m, 7133 m, 7134 m, 7135 m Ronkay (males).

Distribution. Taiwan.

Note. Chang (1991) illustrates two specimens of “*S. nigrabasal*” in the original description. The male holotype and the female paratype are, however, possibly not conspecific and the female specimen may belong to *S. nora* sp. n.

Etymology. The new species is dedicated to Miss Nora Kovács, daughter of the collector of the holotype.

***Stenoloba ochribasis* sp. n.**

(Figs 16, 35)

Diagnosis. The detailed comparison of *S. nigrabasis* sp. n. and *S. nora* sp. n. is given under the diagnosis of *S. nigrabasis*. The male genitalia of *S. ochribasis* are easily distinguishable from those of the related species by the presence of two (basal and apical) strong extensions of the costa.

Description. Male. Wingspan: 21 mm. Head and thorax ochreous green, mixed with some brownish grey scales; metathorax plumbeous grey. Forewing relatively narrow, elongate; costal margin arcuate; ground colour ochreous green, basal area suffused with orange-rufous; medial field irrorated with bluish grey and brownish scales. Antemedial line double, sinuous, arcuate, marked finely with black; medial and postmedial lines simple, darker greyish brown, running very close to each other. Orbicular stigma represented by a rounded orange patch; claviform marked by two blackish spots. Reniform stigma encircled by a whitish annulus, filled with greyish, marked also with a blackish spot outwards. Subterminal line indistinct, whitish, defined by bluish-greyish shadow at outer side. Hindwing dark cupreous brown, marginal area somewhat darker. Underside of wings ochreous grey; forewing strongly suffused; hindwing rather sparsely irrorated with dark grey-brown scales, discal spots and transverse lines present.

Male genitalia (Fig. 35). Uncus thin, relatively long but weak, basally flattened; scaphium a well-developed, large, sclerotized plate below uncus; tegumen and vinculum narrow, moderate in length; juxta deltoidal, wide at base. Valva elongate, constricted subapically; costa with large, thick basal and with smaller, weaker subapical extensions; apical part of valva narrow, pointed. Aedeagus shorter than valva; vesica tubular, armed with a row of small spines at base; medial part finely scobinate.

Female unknown.

Materials examined. Holotype: male, Laos, Xieng Khouang, 16–19 VI 1995, slide no. VK90296–7, deposited in NSM, Tokyo.

Distribution. Northern Laos.

The *Stenoloba viridescens* species-group***Stenoloba viridescens* sp. n.**

(Figs 17, 18, 36, 37, 50)

Diagnosis. The *S. viridescens* species-group comprises numerous, closely related, externally very similar species. They are, however, easily distinguishable by the genitalia of both sexes. All known species of the group occur in the mountain regions of North Vietnam and supposedly further species will be discovered in other regions of northern Indochina. *S. viridescens* can be recognized by its relatively wide forewing with more or less pointed apex brown-bright green coloration; orbicular stigma sharply defined as a distinct black spot; reniform stigma also clearly visible, outlined by thin black line; postmedial line with white streak near tornal angle. The male genitalia are very characteristic: distal part of valva with heavily sclerotized, bifurcate costal extension; sacculus elongate with deep cut in middle and with long, acute, wedge-shaped apical extension. The structure of aedeagus and vesica are rather simple: vesica

narrowly tubular, recurved; medial and distal parts scobinate; distal end covered with small spinules. The most conspicuous features of the female genitalia are the long, relatively narrowly tubular; sclerotized ductus bursae and the large, rather well-separated, mushroom-shaped cervix bursae.

Description. Wingspan 26–30 mm. Head and thorax moss-green with scarce dark markings. Forewing relatively broad; costa arcuate at base; medial part almost straight; apex finely pointed. Ground colour dark, shiny blackish-brown with green suffusion; costal area covered with darker moss-green scales. Base of wing dark brown; basal field light mossy green; basal line rather indistinct, double, strongly waved, filled with whitish green; subbasal field dark, blackish brown, suffused with green; inner area with large, pale moss-green patch; antemedial line dark greyish brown, stronger in costal area; medial line fine, narrow, blackish, wider in costal part. Medial field irrorated with a few ochreous scales; postmedial line double, dark brown, filled with moss-green, and with conspicuous white streak at tornus. Claviform absent, orbicular represented by rounded black spot; reniform stigma encircled with thin black line, filled partly with whitish; inner area of cell with a few whitish scales between orbicular and reniform. Subterminal less distinct, defined by darker blackish shadow; apical patch light greenish, with whitish mark; terminal line a row of black spots, with pale moss-greenish marks between them. Hindwing dark brownish grey, darker in outer part; discal spot traceable, relatively large, diffuse; transverse line obsolescent, poorly visible. Underside of wings yellowish grey; forewing covered with darker brown scales in central part, reniform and postmedial line well discernible; hindwing irrorated with a few dark grey-brown scales, discal spot, transverse line and marginal area dark brownish.

Male genitalia (Figs 34, 37). Uncus very small, rudimentary; tegumen short, narrow; vinculum broad, strong; juxta long, subtriangular with slightly broadened dorsal extension. Valva relatively short, strongly sclerotized, with narrow basal plate of harpe; distal part truncate, producing into large, heavily sclerotized, acute, partly bifurcate costal extension; ventral margin strongly angled distally; sacculus very long, sclerotized, with broad, triangular basal lobe, and acute, thick terminal extension. Aedeagus more or less equal to valva in length, sclerotized at apex; vesica narrowly tubular, curved ventro-laterally at middle, finely scobinate; distal half with two small, membranous diverticula, and with a large zone of fine denticles and fine spinules, their size increasing towards ductus ejaculatorius.

Female genitalia (Fig. 50). Ovipositor weak, elongate, conical; papillae anales also elongate; apophyses anteriores longer and thinner than posterior ones. Antrum large, slightly cup-shaped, flattened and sclerotized, caudal margin strongly convex. Ductus bursae long, tubular, flattened, sclerotized; cervix bursae well-separated, somewhat mushroom-shaped, strongly sclerotized, with deep subapical fold; corpus bursae elliptical-ovoid, membranous.

Materials examined. Holotype: male, North Vietnam, Tam Dao, 60 km NW Hanoi, 2334'N, 10520'E, 1200 m, 1–5 V 1993 (leg. V Sinaev & M Simonov). Paratype: Vietnam: 1 ♀, same data as holotype; 8 ♂, 3 ♀, Tam Dao, 1200 m, 1–15 V 1992 (Sinaev & Simonov); 5 ♂, 1 ♀, Tam Dao, 800–1100 m, 2128'N, 10538'E, 19 V 13 VI 1995 (leg. H Malicky).

Slide nos ZFMK1907, 1908, 1909, 1910, 6715 m Ronkay (males). The holotype is deposited in the collection of Dr. W. Speidel (Germany), and paratypes are in the collection of ZFMK, Bonn; NHM, Wien; HNHN, Budapest; and H Hacker (Staffelstein).

Distribution. North Vietnam.

***Stenoloba cinechlora* sp. n.**

(Figs 19, 51)

Diagnosis. The new species is externally similar to *S. viridescens*, but easily distinguishable by its paler forewing in colouration, less expressed dark elements of wing pattern, wide greyish-white surrounding of reniform and by the diffuse, wider white patch in tornal area. The female genitalia of the new species differ from those of *S. viridescens* by the shape of antrum, the wider, somewhat shorter ductus bursae, and by the shape of cervix and corpus bursae (see Figs 51, 52).

Description. Female. Wingspan 26 mm. Head and thorax moss-green with scarce dark-greyish markings. Forewing relatively broad; costa arcuate; apex finely pointed. Ground colour of forewing shiny, pale greyish mixed with moss-green, paler than that of the preceding species; costal and subbasal areas somewhat darker. Inner part of wing more greenish; basal, subbasal and antemedial lines rather fine, marked more conspicuously in costal part; median fascia obsolescent, fine, blackish, less diffuse in costal area; postmedial line fine, double, blackish, filled with moss-green, with conspicuous, wide whitish patch at tornus. Claviform absent; orbicular represented by rounded black spot with fine whitish annulus; reniform encircled with fine, indistinct black lunule and a few blackish spots. Subterminal line less distinct, ochreous, defined by a darker blackish shadow; terminal line a row of black spots; cilia greyish. Hindwing brownish grey, darker in outer part; discal spot traceable, relatively large, diffuse; transverse line indistinct; cilia whitish. Underside of wings pale, yellowish grey; inner area of forewing covered with darker brown scales, reniform and postmedial line well discernible; hindwing irrorated with a few dark grey-brown scales; discal spot, transverse line, and marginal stripe dark brownish.

Male unknown.

Female genitalia (Fig. 51). Ovipositor weak, moderate in length; papillae anales fine, rather elongate; apophyses anteriores longer than posteriores. Antrum relatively long, longer than that of *S. viridescens*, its upper margin almost straight with very shallow cut in centre. Ductus bursae flattened, moderately long, wider than in *S. viridescens*, with knee-like curve at middle; cervix bursae well-separated, sclerotized, larger than in *S. viridescens*, with two large apical lobes covering proximal part of ductus bursae laterally; lateral surface with longitudinal crest. Corpus bursae elongate, membranous.

Materials examined. Holotype: female, North Vietnam, Cha-pa, Mt. Fan-si-pan, 22.15N, 103.46E, 1500–1800 m, 8–28 V 1993 (Sinaev et Simonov leg.). The holotype is deposited in the collection of Dr. W. Speidel, Bonn, Germany.

Distribution. North Vietnam.

***Stenoloba speideli* sp. n.**

(Figs 20, 38, 39, 52)

Diagnosis. The new species resembles externally *S. viridescens*, differing from the latter by its more monotonous green-brownish colouration of the forewing with less expressed wing pattern; small, indistinct orbicular stigma; the considerably smaller, less whitish tornal mark. The male genitalia show a close relationship with *S. viridescens*, but the costal extension of *S. speideli* is not bifurcate and not

acute but rounded, bearing a single strong spine, the sacculus has a well-developed clavus, and the distal saccular extension is acute, curved inwards. The female genitalia of *S. speideli* can be characterized by the trapezoidal distal margin of antrum, the rounded-discoidal corpus bursae with expressed neck, and the shape and position of cervix bursae.

Description. Wingspan 24 mm. Head and thorax mossy green, mixed sparsely with dark hair-scales. Forewing broad; costa arcuate at base; apex finely pointed. Ground colour of forewing dark, shiny moss-green, irrorated with blackish brown. Antemedial line oblique, double, blackish, filled with mossy green; medial line rather indistinct, stronger in costal area; medial field moss-green, somewhat darker in central part; postmedial line double, blackish, filled with greenish in costal part and with grey at middle; tornal area with fine whitish-ochreous dot. Claviform stigma absent; orbicular stigma incompletely encircled with a few small black dots, filled with moss-green; reniform indistinct, marked with fine blackish outline and with two minute dots, area around reniform greyish-green. Subterminal line obsolescent, defined by darker brownish shadow; apical patch pale greyish-green; terminal line a row of black streaks with pale ochreous-greenish dots between them; cilia brownish-green. Hindwing dark greyish brown; outer part slightly darker; discal spot and transverse line hardly traceable, diffuse. Underside of wings yellowish-grey; inner area of forewing covered with darker brown, reniform and postmedial line well-marked. Hindwing irrorated with dark grey-brown scales, discal spot and transverse line present.

Male genitalia (Figs 38, 39). Uncus very small, rudimentary; tegumen short, narrow; vinculum wide; juxta long, subtriangular, rather broad basally, narrower dorsally. Valva relatively short, sclerotized, with well-developed costa, constricted and curved dorsally at apical third in right angle; apex more or less rounded, bearing a single, strong spine and some long setae. Sacculus elongate; its apical margin exceeding valval plate; apical extension broad, acute, curved; clavus present, strong, rounded conical; basal plate of harpe also present, narrow. Aedeagus shorter than valva, sclerotized at apex; vesica narrowly tubular, more or less straight, armed with small, fine spinules in distal half.

Female genitalia (Fig. 52). Ovipositor weak, moderately long, shorter than in *S. viridescens*; papillae anales also elongate; apophyses rather short, almost equal in length. Antrum elongate, sclerotized, somewhat narrower than those of the other species, cup-like, with large, trapezoidal caudal extension. Ductus bursae moderately long, thin, sclerotized; corpus bursae connected with ductus bursae by narrow, membranous neck; cervix bursae well-separated, arising from middle of neck of corpus bursae, sclerotized and apically folded; corpus bursae more or less discoidal, membranous.

Materials examined. Holotype: male, North Vietnam, Tam Dao, 60 km NW Hanoi, 2334'N, 10520'E, 1200 m, 1-5 V 1993 (leg. V Sinaev & M Simonov). Paratype: Vietnam: 1 ♂, 1 ♀, Tam Dao, 1200 m, 1-15 V 1992 (Sinaev & Simonov); 1 ♂, 1 ♀, Tam Dao, 800-1100 m, 2128'N, 10538'E, 19 V 13 VI 1995 (leg. H Malicky).

Slide nos 1913 Kononenko, 6717 m Ronkay (males), 1914 Kononenko, 6716f Ronkay (females). The holotype is deposited in coll. Dr. W. Speidel (Germany), and the paratypes are in the collection of the NHM, Wien; HNHM, Budapest; and H. Hacker (Staffelstein).

Distribution. North Vietnam.

***Stenoloba tonkina* sp. n.**

(Figs 21, 40, 53)

Diagnosis. The new species is closely related to *S. speideli*, and these two species are externally very similar, but *S. tonkina* differs from the latter by its somewhat darker and more distinct forewing pattern, stronger blackish irroration in the medial field, absence of white tornal mark and the well-expressed greyish apical patch. The specific features of the male genitalia are the wide but short, rudimentary uncus, the relatively short valva with rounded distal margin and with finger-like apical extension directed dorsally, and the asymmetrical, sclerotized sacculi. The female genitalia can be characterized by the wide, relatively shallow antrum and the short ductus bursae having sclerotized dorsal extension.

Description. Wingspan 25–26 mm. Forewing relatively broad, with arcuate costa and with finely pointed apex. Ground colour of dark, shiny moss-green, irrorated with blackish and brown scales; basal area broadly moss-green; basal line thin, indistinct; antemedial line oblique, double, black, filled with moss-green; medial line indistinct, blackish, somewhat stronger at costa; medial field darkened, irrorated strongly with blackish scales; postmedial line double, blackish, filled with mossy green. Claviform stigma absent; orbicular encircled with fine black line, filled with ground colour and with a dark dot in centre; reniform stigma incompletely encircled with black spots; subterminal line less distinct, defined by diffuse, sinuous, blackish shadow; apical patch large but diffuse, pale greyish green; terminal line a row of black dots, defined by green marks; cilia brownish green or ochreous green. Hindwing dark greyish brown; discal spot and transverse line hardly traceable; cilia blackish brown with yellowish basal line. Underside of wings brown, suffused with pale yellowish-grey; markings of forewing (reniform and postmedial line) poorly visible; discal spot and transverse line of hindwing more distinct.

Male genitalia (Fig. 40). Uncus rudimentary, short but wide; tegumen short, vinculum longer, both narrow; juxta narrow, sclerotized, subtriangular. Valva short with well developed costa, wide at base, narrower apically; apex rounded, bearing strong, finger-like extension projecting dorsally; sacculus elongate, asymmetrical, its distal lobe rounded in right valva, tapering and pointed in left valva. Aedeagus shorter than valva, carina oblique, sclerotized; vesica widely tubular, curved dorsally, inflated medially, with long medial diverticulum terminated in small, pointed cornutus.

Female genitalia (Fig. 53). Ovipositor weak, moderate, shorter than that of *S. viridescens*; papillae anales rather elongate; apophyses anteriores longer than posterior ones, both pairs relatively short. Antrum broad and shallow, sclerotized, funnel-like; caudal margin convex, postero-lateral extensions relatively large. Ductus bursae short, membranous, with sclerotized dorsal extension; cervix bursae sclerotized, smooth; corpus bursae relatively large, elongate-sacculiform, membranous.

Materials examined. Holotype: male, N Vietnam, Tam Dao, 1200 m, 1–5 V 1992 (Sinaev et Simonov leg.), slide no. ZFMK1916. Paratype: Vietnam: 1 ♀, with the same data as the holotype, slide No. ZFMK 1917, deposited in NHM, Wien.

Distribution. North Vietnam.

***Stenoloba longipennis* sp. n.**

(Figs 22, 41, 54)

Diagnosis. The new species differs from all relatives of the *S. viridescens*-group by its characteristic shape of the forewing, being strongly arched at base, having parallel costal and ventral margins. Outer margin of forewing perpendicular to costal and ventral ones, tornal angle oblique. Forewing ground colour brown, mixed with greenish; wing pattern indistinct, appearing as oblique streaks in costal area and as a more or less distinct postmedial line. The male genitalia differ strikingly from the related taxa by the strongly asymmetrical valvae and sacculi, the very long, sword-like right saccular extension and the simplified vesica, lacking any spinules or cornuti. The female genitalia differ mostly from the related species by their weakly sclerotized or entirely membranous ductus, cervix and corpus bursae, and the weaker sclerotization of the broadly calyculate but rather short antrum.

Description. Wingspan 27–28 mm. Head and patagia greyish green, latter with wide grey border; tegulae brown–grey mixed with green. Forewing narrow, strongly arched at base; costal and ventral margins parallel; outer margin perpendicular to costal and ventral ones; tornal angle oblique; ground colour of forewing dark brown, irrorated with greenish scales, wing pattern consisting of darker, indistinct lines and spots; basal streak small, black; basal and subbasal lines indistinct, represented by diffuse dark marks in costal and ventral areas; antemedial line indistinct, double, stronger at costa and near inner margin. Orbicular and reniform stigmata dark, diffuse spots, encircled with dark lines. Postmedial line rather sharply defined, double, with dentate outer line; both lines marked in costal area by oblique streaks. Subterminal and terminal fields separated by wide, diffuse, reddish–brown subterminal fascia, having somewhat paler outer margin; apical patch somewhat paler grey. Terminal line a row of dark brown dots with greyish surrounding; cilia greyish brown. Hindwing dark greyish brown, marginal area darker, discal spot indistinct, diffuse; cilia greyish brown with pale yellowish grey basal line. Underside of both wings dark greyish brown; forewing with shadow-like reniform and antemedial line; hindwing paler, discal spot and medial line diffuse, marginal stripe darker brownish.

Male genitalia (Fig. 41). Uncus very short, narrow; tegumen narrow, low; vinculum large, broadly U-shaped; juxta large, elongate subrectangular plate. Valvae strongly asymmetrical, short, relatively broad, both valvae terminated in narrow, long, apically finely rounded and setose extensions; left valva with larger, right valva with smaller, setose costal lobe. Sacculi large, heavily sclerotized, distally slightly tapering, curved and rounded; right sacculus with very long, acute, sword-like extension. Aedeagus long, cylindrical, carina with strong ventral plate and ventro-lateral bar; vesica upturned dorsally, rather simple, short, inflated, with tiny subbasal and larger terminal diverticula, latter with fine scobination.

Female genitalia (Fig. 54). Ovipositor medium-long, conical, weak; apophyses posteriores longer than anteriores. Antrum relatively short, broad, slightly asymmetrically lyriform with sclerotized medial part and medium-long postero-lateral extensions. Ductus bursae short, tubular, membranous with long wrinkles, ventral plate with rather weak sclerotization; cervix bursae small, rounded conical, strongly wrinkled; corpus bursae elongate-sacculiform, finely scobinate and wrinkled.

Materials examined. Holotype: male, Vietnam, Bach-ma National Park, 16.10N, 107.54E, 1200 m, 26 VI ? 6 VIII 1996 (leg. V Sinjaev & W Afonin); slide no. 6712 m Ronkay (coll. HNHM Budapest).

Paratypes: Vietnam: 4 ♂, 5 ♀, same data as the holotype. The paratypes are deposited in the collection of Dr. M. Hreblay (Érd) and G. Ronkay (Budapest).

Slide no. 6713f Ronkay (female).

Distribution. Vietnam.

REFERENCES

- Boursin, Ch. 1951. Eine neue *Cryphia* Hb. (*Bryophila* auct.) aus Ost-Asien. Z. wien. ent. Ges. 36: 155–158, pl. 11.
- Chang, B.S. 1991. Illustration of moths in Taiwan (5). Taiwan Museum. 1–336.
- Chen, Y. 1982. Noctuidae. *Iconographia Insectorum Sinicorum*. Beijing. Science press. III: 237–390, 1–24, tabs. 76–118 [in Chinese].
- Draudt, M. 1950. Beitr ge zur Kenntnis der Agrotiden-Fauna Chinas. Aus den Ausbeuten Dr. H. Hne's. Mitt. m nchn. ent. Ges. 40: 1–174, pls I–XV.
- Hampson, G.F. 1894. The fauna of British India, including Ceylon and Burma. Moth. Vol. 2: 609 pp, xxii. London, Taylor and Francis.
- Hampson, G.F. 1910. Catalogue of the Lepidoptera Phalaenae in the British Museum. Vol. 10: i–xix, 1–829. London, Taylor and Francis.
- Hampson, G.F. 1912. Catalogue of the Lepidoptera Phalaenae in the British Museum. Vol. 11: i–xvii, 1–689. London, Taylor and Francis.
- Kononenko, V.S., S.B. Ahn and L. Ronkay. 1998. *Illustrated Catalogue of Noctuidae in Korea (Lepidoptera)*. In: Park, K. T. (ed.): *Insects of Korea* [3]. pp. 509.
- Mell, R. 1943. Beitrge zur Fauna sinica. XXIV. ber Phlogophorinae, Odontodinae, Sarrothripinae, Westermanniinae und Camptolominae (Noctuidae, Lepid.) von Kuangtung. Zool. Jb. (Systematik) 1(3): 171–226.
- Moore, F. 1888. Description of new Indian Lepidopterous Insects from the Collection of the Late Mr Atkinson. Heterocera (continued) (Pyralidae, Crambidae, Geometridae, Tortricidae, Tineidae). London. Taylor and Francis, pp. 199–299, pl. 7, 8.
- Leech, J.H. 1889. On the Lepidoptera of Japan and Korea. Part III. Heterocera, sect. II. Proc. zool. Soc. Lond. 1889: 474–571.
- Oberthr, Ch. 1884. Lepidopteres de l'Asie Orientale. Etudes d'Entomologie, 10: 134–35, 3 pl.
- Poole, R.W. 1989. Noctuidae. *Lepidopterorum Catalogus (New Series)*, Fascicle 118, 1314 pp. E.J. Brill, Leiden.
- Sugi, S. 1970. Notes of the genus *Stenoloba* Staudinger, with description of a new genus (Lepidoptera, Noctuidae, Cryphinae). Kontyu 38: 130–135.
- Sugi, S. 1982. Noctuidae. In Inoue, H. *et al.*, Moths of Japan, 1: 669–936, 2: 344–409, pls. 163–226, 355–392.
- Warren, W. 1909–1914. Die eulenartige Nachtfalter. In Seitz A. (Ed.). *Die Gross-Schmetterlinge der Erde. Die Gross-Schmetterlinge des Palaearctischen Faunengebietes. Band 3.* Alfred Kernen Verlag Stuttgart, 511 pp, iv, 75 pl.
- Wang, H.Y. 1995. Noctuid moths and it's allied species from the neighbouring countries. Guide book to Insects in Taiwan (13): 1–199.
- Wileman, A.E. 1914. New species of Arctiidae and Noctuidae from Formosa. Entomologist 47: 161–169.
- Yoshimoto, H. 1993. Noctuidae. In Haruta, T. (ed.): *Moths of Nepal*. Part 1. Tinea 13 (Suppl. 2): 50–69, pls

13–16.

Yoshimoto, H. 1993. Noctuidae. In Haruta, T. (ed.): Moths of Nepal. Part 2. Tinea 13 (Suppl. 3): 124–141, pls 61–62.

(Received: 20 Nov. 2000)

(Accepted: 5 Jun. 2001)

Legends of figures

- Figs. 1–21. Adults:** 1. *S. sericea* **sp. n.**, paratype, f, (North Vietnam); 2. *S. variegata* **sp. n.**, holotype (North Vietnam); 3. *S. viridimicta* (Hampson, 1910) (India, Darjeling); 4. *S. chlorographa* **sp. n.**, holotype (Nepal); 5. *S. lichenosa* **sp. n.**, holotype (Taiwan); 6. *S. lichenosella* **sp. n.**, holotype (North Vietnam); 7. *S. aenescens* (Moore), lectotype, (North India); 8. Ditto, labels; 9. *S. glaucescens* (Hampson, 1894) (Nepal); 10. *S. glaucescens* (Hampson, 1894) (Nepal); 11. *S. glauca* **sp. n.**, holotype (North Vietnam); 12. *S. albipicta* **sp. n.**, holotype (China, Likiang); 13. *S. rufosagitta* **sp. n.**, holotype (Taiwan); 14. *S. nigrabasis* Chang, 1991 (Taiwan); 15. *S. nora* **sp. n.**, holotype (Taiwan); 16. *S. ochribasis* **sp. n.**, holotype (Laos); 17. *S. viridescens* **sp. n.**, holotype (North Vietnam); 18. *S. cinechlora* **sp. n.**, holotype (North Vietnam); 19. *S. speideli* **sp. n.**, holotype (North Vietnam); 20. *S. tonkina* **sp. n.**, holotype (North Vietnam); 21. *S. longipennis* **sp. n.**, holotype (North Vietnam).
- Figs. 22–26. Male genitalia and their aedeagus (a):** 22. *S. sericea* **sp. n.**, paratype (North Vietnam); 23. *S. variegata* **sp. n.**, paratype (North Vietnam); 24. *S. viridimicta* (Hampson, 1910), (India, Darjeling); 25. *S. chlorographa* **sp. n.**, holotype (Nepal); 26. *S. lichenosa* **sp. n.**, holotype (Taiwan).
- Figs. 27–32. Male genitalia and their aedeagus (a):** 27. *S. lichenosella* **sp. n.**, holotype (North Vietnam); 28. *S. glaucescens* (Hampson, 1894), (Nepal); 29. *S. glauca* **sp. n.**, holotype (North Vietnam); 30. *S. albipicta* **sp. n.**, paratype (China, Likiang); 31. *S. rufosagitta* **sp. n.**, holotype (Taiwan); 32. *S. rufosagitta* **sp. n.**, paratype (Vietnam).
- Figs. 33–37. Male genitalia and their aedeagus (a):** 33. *S. nigrabasis* Chang, 1991 (Taiwan); 34. *S. nora* **sp. n.**, holotype (Taiwan); 35. *S. ochribasis* **sp. n.**, holotype (Laos); 36. *S. viridescens* **sp. n.**, holotype (North Vietnam); 37. *S. viridescens* **sp. n.**, paratypes (North Vietnam).
- Figs. 38–41. Male genitalia and their aedeagus (a):** 38. *S. speideli* **sp. n.**, holotype (North Vietnam); 39. *S. speideli* **sp. n.**, paratype (North Vietnam); 40. *S. tonkina* **sp. n.**, holotype (North Vietnam); 41. *S. longipennis*, **sp. n.**, holotype (North Vietnam).
- Figs. 42–45. Female genitalia:** 42. *S. sericea* **sp. n.**, paratype (North Vietnam); 43. *S. variegata* **sp. n.**, holotype (North Vietnam); 44. *S. chlorographa* **sp. n.**, paratype (Nepal); 45. *S. lichenosa* **sp. n.**, paratype (Taiwan).
- Figs. 46–49. Female genitalia:** 46. *S. glaucescens* (Hampson, 1894), (Nepal); 47. *S. albipicta* **sp. n.**, paratype (China, Likiang); 48. *S. rufosagitta* **sp. n.**, paratype (Taiwan); 49. *S. nigrabasis* Chang, 1991, (Taiwan).
- Figs. 50–54. Female genitalia:** 50. *S. viridescens* **sp. n.**, paratype (North Vietnam); 51. *S. cinechlora* **sp. n.**, holotype (North Vietnam); 52. *S. speideli* **sp. n.**, paratype (North Vietnam); 53. *S. tonkina* **sp. n.**, paratype (North Vietnam); 54. *S. longipennis* **sp. n.**, paratype (North Vietnam).











